

REMARKS

Claims 1-5 are currently pending in the application. In the above amendment, Applicants' representative has cancelled claim 1 and has added claims 6-13 to more distinctly point out and clearly claim that which Applicants regard as their invention. In the Office Action dated April 8, 2004, ("Office Action"), the Examiner rejected claim 1 under 35 U.S.C. § 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships with elements, and rejected claims 1-5 under 35 U.S.C. § 102(e) as being anticipated by Wahl et al., U.S. Patent No. 6,324,654 (Wahl). Applicants' representative has cancelled claim 1 in response to the Examiner's 35 U.S.C. 112 rejection. Applicants' representative respectfully traverses the rejections of claims 1 -5 under 35 U.S.C. § 102(e).

As clearly stated in the summary of the invention of the Wahl patent, Wahl's disclosed system:

... provides methods and apparatus for a novel synchronous, asynchronous, or near synchronous computer system remote disk, or data, mirroring system over a network. (Wahl, column 2, lines 44-47)

Wahl's disclosed system provides a method :

... for ensuring data integrity through a systems failure while updates are occurring in parallel to two data storage devices, such as disk drive devices, simultaneously. The disks are simultaneously updated through a device driver. Preferably, each disk is provided with a disk interface, such as a SCSI interface, to enhance reliability and speed of data updates. Consequently, data is written and thus stored substantially simultaneously on both the local data device and in the writelog device. (Wahl, column 3, lines 45-54)

Wahl's disclosed system provides " insurance for mission critical data" by:

.... implementing asynchronous, synchronous, or near synchronous data mirroring using network bandwidth throttling. It provides substantially realtime data mirroring over LANS and WANs to quickly move data offsite, yet does not impact application

performance significantly. In the event of a disaster taking the primary data center out of service for hours or days, operations can be transferred to a secondary site within minutes, operating on an up-to-the-minute copy of the original data set. (Wahl, column 4, lines 33-45) (emphasis added)

Figure 1 of Wahl clearly shows Wahl's network-based remote data mirroring system. This system includes a primary system and a secondary system, with the secondary system including a primary mirror daemon 30 linked by a network connection to a primary mirror daemon 24 of the primary system so that data can be mirrored to data-storage devices of the secondary system. Wahl essentially discloses a very traditional remote mirroring system for database redundancy and database restoration in the case of "a disaster taking the primary data center out of service for hours or days."

Applicants' disclosed and clearly claimed highly available transaction processing system not only includes a first primary transaction processing site and a standby transaction processing site, but also management components and services that, according to newly amended claim 2, "map software and hardware components of the primary transaction processing site and the standby transaction processing site to a set of transaction-processing services," "monitor the primary site for software and hardware errors," "determine when sufficient software and hardware components have failed to prevent one or more services from being provided to clients from the primary transaction processing site, and that fail over the primary site to the standby site in order to continue transaction processing at the remote site when a service failure that prevents continued transaction processing is detected on the primary site." In other words, as described in the current application beginning in the third paragraph of page 8, under the heading "Service Views," Applicants' system maps software hardware components of the primary and standby transaction processing system sites into a service view of the sites. Applicants' system then monitors the primary and standby sites to detect a point in time when service provision at the primary site degrades to a point that a failover is needed. This mapping of hardware and software components to services is not mentioned or suggested in Wahl. By contrast, Wahl merely indicates, in the above-quoted sections of

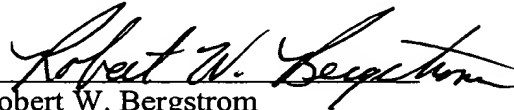
the Summary of the Inventions, that Wahl's secondary site is invoked in the event of a disaster taking the primary data center out of service. Wahl does not describe server failover, indicating only, in the paragraph beginning on line 44 of column 23, that a server failover system can be used to address system failures.

In the Examiner's rejection of claim 1 in the Office Action, the Examiner repeatedly infers that, because Wahl carries out some basic transaction-processing-system operation, Wahl would necessarily include one or more of the types of management components originally specified by applicants in claim 1. Such inferences are inappropriate for 35 U.S.C. § 102 rejections. A cited reference must actually teach or mention a claimed component or method. An Examiner may not substitute an inference for such teaching or mention. Moreover, in the rejection of claim 1, Applicants' representative believes that the inferences are not justified. Many highly available transaction processing systems are commercially available which do not include the components originally listed in claim 1.

In order to more clearly point out a distinctive claim that which Applicants regard as their invention, Applicants' representative has cancelled claim 1, and added new claims that depend from claim 2 and in which the components originally listed in claim 1 are more comprehensively claimed. Applicants' representative has also amended claim 2 in order to clearly claim the fact that Applicants' system carries out a mapping of software and hardware components to services, so that automatic failovers may be carried out upon detection of service degradation, rather than be carried out naively upon component failure or at a last resort upon a disastrous failure of the primary transaction processing site.

All of the claims remaining in the application are now clearly allowable.
Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
Ramesh Kavanapllil et al.
Olympic Patent Works PLLC


Robert W. Bergstrom
Registration No. 39,906

Enclosures:
Postcard
Transmittal in duplicate

Olympic Patent Works PLLC
P.O. Box 4277
Seattle, WA 98194-0277
206.621.1933 telephone
206.621.5302 fax